Metropolitan State University, Saint Paul, Minnesota

ICS 140 Computational Thinking with Programming

Assignment 6

**Refactor Roulette Wheel Program**

Update the code from assignment 5 using a while loop to make sure the input is valid. If the input is invalid, prompt the user again.

The new output should look something like this when run with some invalid entries.

**Text

Description automatically generated**

**Original Problem Description for Roulette While Program**

On a roulette wheel, the pockets are numbered from 0 to 36. The colors of the pockets are as follows:

* Pocket 0 is green.
* For pockets 1 – 10:
  + Odd numbered pockets are red
  + Even numbered pockets are black
* For pockets 11 – 18:
  + Odd numbered pockets are black
  + Even numbered pockets are red
* For pockets 19 – 28:
  + Odd numbered pockets are red
  + Even numbered pockets are black
* For pockets 29 – 36:
  + Odd numbered pockets are black
  + Even numbered pockets are red

Write a program that asks the user to enter a pocket number and displays whether the pocket is green, red or black. The program should indicate the number is invalid if a number outside the accepted range is given.

It should look something like this when run:

Text

Description automatically generated with medium confidence

Paste the python code below in the Python code section.

**Assignment 6 Python Code**

number = int(input("Input a number 0-36: "))

while number > 36 or number < 0:

print("Invalid input, please make sure the number is 0-36")

number = int(input("Input a number 0-36: "))

if number == 0:

print("Pocket is green")

elif 0 < number < 11:

if number % 2 == 0:

print("Pocket is black")

else:

print("Pocket is red")

elif 10 < number < 19:

if number % 2 == 0:

print("Pocket is red")

else:

print("Pocket is black")

elif 18 < number < 29:

if number % 2 == 0:

print("Pocket is black")

else:

print("Pocket is red")

elif 28 < number < 37:

if number % 2 == 0:

print("Pocket is red")

else:

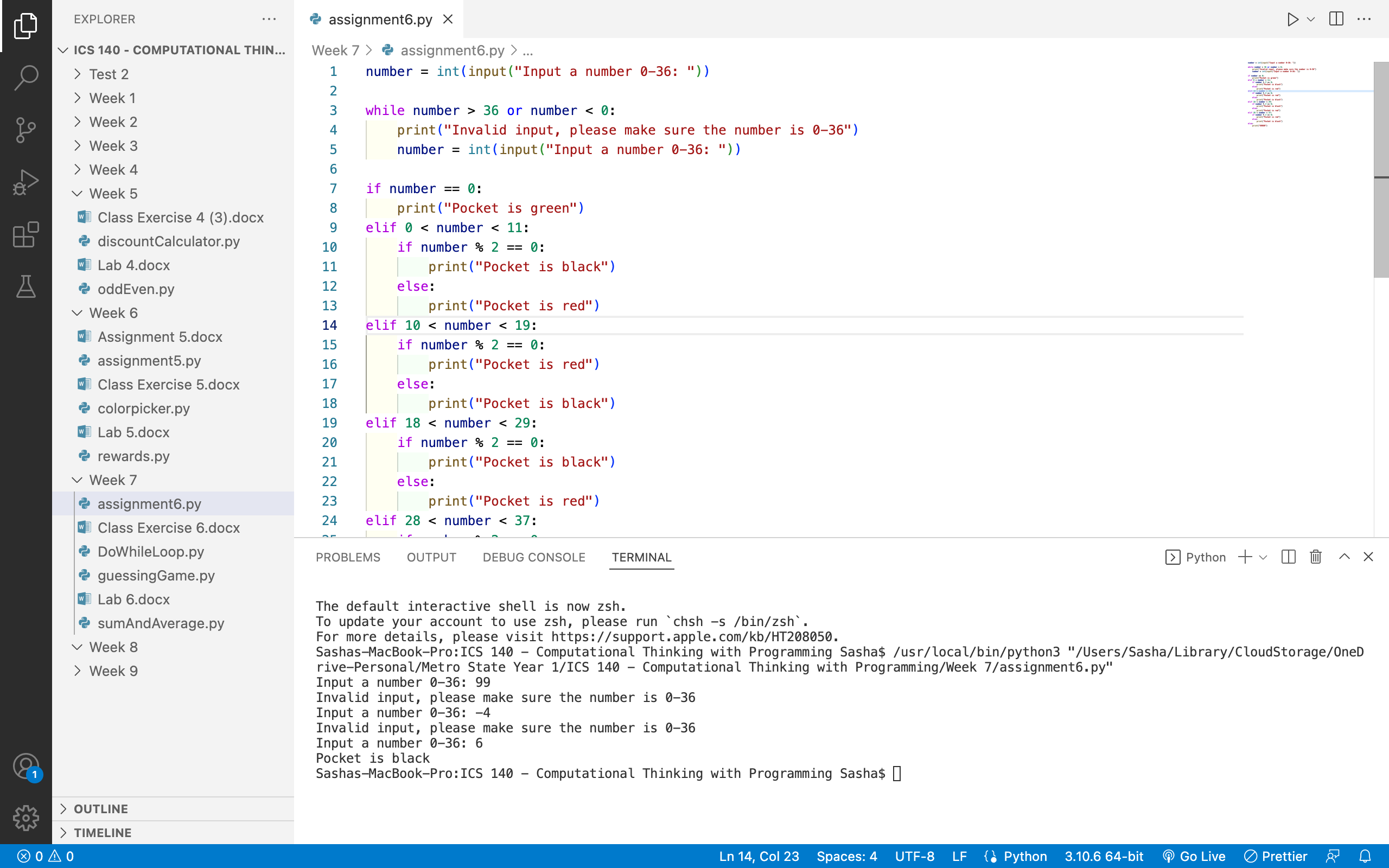
print("Pocket is black")

else:

print("ERROR")

Paste the screenshot of the program

**Testing Screenshots from manually running the program for a few invalid entries before giving a valid entry.**

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